

## **REMARKS**

Applicant respectfully requests reconsideration and allowance of all of the claims of the application. Claims 1-48 are presently pending. Claims 1-11, 13-22 and 24-48 have been amended. No claims have been added, canceled or withdrawn. Claims 1, 13, 24, 28, 32, 37, 42, 45 and 47 are independent.

### **Statement of Substance of Interview**

The Examiner graciously talked with me, the undersigned representative for the Applicant, on November 24, 2008. Applicant greatly appreciates the Examiner's willingness to talk. Such willingness is invaluable to both of us in our common goal of an expedited prosecution of this patent application.

During the interview, I discussed how pending claims 1-48 differed from the cited references, namely Packer and Conan. Without conceding the propriety of the rejections and in the interest of expediting prosecution, I also proposed several possible clarifying amendments.

The Examiner was receptive to the proposals, and I understood the Examiner to indicate that the proposed clarifying claim amendments appeared to distinguish over the cited art of record. However, the Examiner indicated that he would need to review the cited art more carefully and do another search, and requested that the proposed amendments be presented in writing.

Applicant herein amends the claims in the manner discussed during the interview. Accordingly, Applicant submits that the pending claims are allowable

over the cited references of record for at least the reasons discussed during the interview.

### **Formal Request for an Interview**

If the Examiner's reply to this communication is anything other than allowance of all pending claims, and if the Examiner feels that further discussion of the claims or the invention would help advance prosecution of the application, then I formally request an interview with the Examiner. I encourage the Examiner to call me, the undersigned representative for the Applicant, so that we can discuss this matter so as to resolve any outstanding issues quickly and efficiently over the phone.

### **Claim Amendments and Support**

Without conceding the propriety of the rejections and in the interest of expediting prosecution, Applicant amends claims 1-11, 13-22 and 23-48 herein. Applicant amends these claims to clarify the claimed features. Such amendments are made to more quickly identify allowable subject matter, and should not be construed as further limiting the claimed invention in response to the cited references.

Support for the amendments to claims 1, 13, 28, 32, 37, 42, 45 and 47 is found in the specification, e.g., at least at paragraphs 0006, 0020, 0024, and 0025 of the published present application, US2005/0021687. Support for the amendments to claims 2, 3, 14, 15, 35, 36, 40 and 44 is found in the specification, e.g., at least at paragraphs 0026, 0041 and 0042. Support for the

amendments to claims 4, 16, 29, 33, and 39 is found in the specification, e.g., at least at paragraphs 0027, 0031 and 0043. Support for the amendments to claims 5 and 17 is found in the specification, e.g., at least at paragraphs 0020 and 0025. Support for the amendments to claims 6, 7, 19, 20, 26, 30, 34, 38, 46 and 48 is found in the specification, e.g., at least at paragraph 0025. Support for the amendments to claim 8 is found in the specification, e.g., at least at paragraph 0045. Support for the amendments to claim 9 is found in the specification, e.g., at least at paragraph 0049. Support for the amendments to claims 10 and 18 is found in the specification, e.g., at least at paragraph 0048. Support for the amendments to claims 11, 22, 27, 41 and 43 is found in the specification, e.g., at least at paragraph 0020. Support for the amendments to claims 21, 25 and 31 is found in the specification, e.g., at least at paragraphs 0048, 0049. Support for the amendments to claim 24 is found in the specification, e.g., at least at paragraphs 0020, 0024-0027, 0031, 0041 and 0043.

## **Substantive Matters**

### **Claim Rejections under § 102 and § 103**

The Office Action rejects claims 32, 37 and 47 under § 102. For the reasons set forth below, the Office Action has not shown that the cited references anticipate the rejected claims. In addition, the Office Action rejects claims 1-31, 33-36, 38-46 and 48 under § 103. For the reasons set forth below, the Office Action has not made a *prima facie* case showing that the rejected claims are obvious. Accordingly, Applicant respectfully requests that the § 102 and § 103 rejections be withdrawn and the case be passed along to issuance.

The Office Action's rejections are based upon the following references alone and/or in combination:

- **Moulden:** *Moulden, JR. et al.*, US Patent Publication No. 2006/0206870 (published September 14, 2006);
- **Gorshenev:** *Gorshenev, et al.*, US Patent Publication No. 2004/0153772 (published August 5, 2004);
- **Conan:** *Conan, et al.*, US Patent Publication No. 2001/0012986 (published August 9, 2001);
- **Mathews:** *Mathews*, US Patent Publication No. 2003/0098879 (published May 29, 2003);
- **Perugini:** *Perugini, et al.*, US Patent No. 5,896,494 (issued April 20, 1999);
- **Packer:** *Packer*, US Patent No. 5,978,575 (issued November 2, 1999); and

- **Klein:** *Klein, et al.*, US Patent No. 6,526,371 (issued February 25, 2003).

### **Overview of the Application**

The Application describes a technology for conducting testing on a remote client computer by a server computer. The remote client computer is connected to the server computer through a network which allows either the remote client computer or server computer to initiate a testing session with the other. Programs resident on the remote client computer and server computer initiate the session. A graphics test tool application program is resident on the server computer. The graphics test tool application program includes a set of instructions and data used to communication to a set of instructions and data in the remote client computer. Communication in particular is performed through a communication channel which further allows graphics tests to be sent from the graphics test tool application program to the remote client computer. The graphics tests may be timed as to how long they take to be sent to the remote client computer.

## **Cited References**

The Office Action cites Moulden as the primary reference in the anticipation- and/or obviousness-based rejections. The Office Action cites Gorshenev and Conan as secondary references in the obviousness-based rejections.

### **Moulden**

Moulden describes a technology for constructing integrated computer testing and task management applications provide a computer user access to multiple testing and task management tools, all through a single, uniform interface. According to exemplary embodiments, an integrated testing application controls known test tools through a well-defined communications interface, either locally on a single machine or in a distributed fashion across multiple networked machines.

### **Gorshenev**

Gorshenev describes a technology for compatibility testing of functionality provided by a User Interface (UI) on a computing device. During operation, the system loads a client testing module on the computing device. The system also loads a remote testing module on a server. Once the client testing module and the remote testing module have been loaded, the system configures a communication-protocol-specific portion of the client testing module to communicate with the remote testing module through an available

communication protocol. The system then compatibility tests the functionality provided by the UI on the computing device. During this compatibility testing, certain portions of the test execute within the client testing module while other portions of the test execute within the remote testing module. Hence, the client testing module and the remote testing module work together in a distributed manner to compatibility test the computing device.

### Conan

Conan describes a technology for automated testing of software in a distributed environment. A system server includes a test bucket for storing test data. System resource availability data is maintained in the system server. Test requests submitted by a user are processed by the system server. Upon appropriate resource availability a dynamic test script is generated by the system server and sent to appropriate client machines for execution. Client processes on the client machines manage the execution of the tests. Client machines return test results to the system server for generation of a test report.

### Mathews

Mathews describes a technology for distributed automated software graphical user interface (GUI) testing that includes maintaining a centralized test queue, which stores multiple software GUI test instances to be executed by multiple distributed test execution computers. Each distributed test execution computer includes a client platform and is connected to one or more server

platforms. The client platforms and server platforms collectively provide multiple client-server combinations against which the tests may be executed. For each test execution computer, a request for a test instance is received from a particular test execution computer in response to completion of a preceding test by the particular test execution computer and, in response, a test instance is retrieved from the test queue. The retrieved test instance is communicated, for each test execution computer, to the particular test execution computer for execution against a particular client-server combination using a testing component supported by the particular test execution computer. The testing component performs automated software GUI testing and produces test results for such testing. A test result for the executed test instance from the particular test execution computer is received in response to the execution of the test instance and is stored for reporting to one or more users.

### Perugini

Perugini describes a technology for a plurality of independent test modules that are executed in a multi-tasking fashion. The diagnostic application is modular with a front end module issuing commands to lower level modules. A lower level test dispatcher module receives information from the plurality of test modules pertaining to test parameters, including whether the test module is multitaskable. A test dispatcher controls the launching of the test modules according to the test parameters. A test definition tool is provided to graphically



develop test scripts by moving icons from one list to another. The output of the test definition tool is a scripting language readable by the diagnostic application.

### Packer

Packer describes a technology for a remote terminal emulator (RTE) in which substantially all of the time elapsing during an emulated use of a computer system under test is categorized and reported. The time required by the computer system under test to respond to command signals transmitted by the RTE is recorded as a receive time and is measured from completion of the transmission of the command signals to recognition of a pattern specified by the RTE as signifying completion of the response by the computer system under test. As a result, the receive time recorded reflects the time required by the computer system under test to (a) process and carry out the command transmitted by the RTE and (b) transmit response data back to the RTE. The RTE accurately measures and reports the measured user think time to provide important information regard the authenticity of the emulated use, when compared to actual user think times measured during actual use of the computer system under test by actual users, and the relative importance of the processing capacity of the computer system under test. The time during which the RTE processes information, causing emulation of use of the computer system under test to be suspended, is accurately measured as application processing time and is reported to the user of the RTE. Substantially all of the time elapsing during the emulated use of the computer system under test is reported to the user of the RTE to

provide the user of the RTE more complete and revealing information regarding the performance of the computer system under test.

Klein

Klein describes a technology for measuring a round trip response time for a transaction performed by a computer in a network environment. The method comprises the steps of starting a software timer when a transaction is initiated at a browser of the computer, and sending the transaction to a server in the network environment. The server services the transaction, and generates a response to the transaction. When the response is received at the browser the software timer is stopped. The start time is subtracted from the stop time to calculate a round trip response time.

## **Anticipation and Obviousness Rejections**

In light of the amendments presented herein and the arguments set forth below, Applicant submits that the rejections under 35 USC §§102 and 103 are moot. Accordingly, Applicant asks the Examiner to withdraw these rejections.

### **Independent Claim 1**

Applicant submits that the combination of Conan with Gorshenev, Packer, Moulden, Perugini, Mathews, Klein and/or the other art of record does not render this claim obvious because none of these references disclose, teach or suggest the following elements, as recited in amended claim 1 (with emphasis added):

...establishing a session with a server computer;

receiving a set of instructions and data directed to providing graphics testing from the server computer, based on execution of a test tool resident at the server computer;

creating a virtual channel to the server computer;

**receiving graphics testing information through the virtual channel for a plurality of graphics tests, each of the plurality of graphics tests being provided sequentially from the server computer to the thin client across the virtual channel, wherein a next one of said graphics tests is not sent until a previous graphics test has completed being sent across the virtual channel; and**

**timing each sequential graphics test to determine a time that each graphics test takes to go across the virtual channel, wherein the time determined for each particular graphics test to go across the virtual channel is indicative of how well the particular graphics test performed.**

The Office Action indicates at Page 8, with respect to the rejection of claims 9 and 21, that Packer teaches timing the execution of a test (citing the Abstract of Packer). However, Applicant respectfully notes that Packer does not teach or suggest timing individual sequentially sent graphics tests, wherein the time determined for each particular graphics test to go across the virtual channel is indicative of how well the particular graphics test performed, as recited in amended claim 1.

Packer is directed to a remote terminal emulator (RTE) in which command signals are transmitted to the system under test (SUT) as if the commands were entered through a remote terminal by an actual user of the system, and receives resulting output data from the SUT (col. 1, lines 60-65). In Packer's RTE, the time required by the computer system under test to respond to command signals transmitted by the RTE is recorded as a receive time and is measured from completion of the transmission of the command signals to recognition of a pattern specified by the RTE as signifying completion of the response by the computer system under test (col. 2, lines 30-34). As a result, the recorded receive time reflects the time required by the computer system under test to (a) process and carry out a command specified by the command signals transmitted by the RTE and (b) *transmit resulting output data back to the RTE* (col. 2, lines 34-38). For example, Packer further discusses at col. 8, lines 58-60, that send time, which is a component of send/receive time, is generally not indicative of the relative performance of the computer system under test.

On the other hand, the invention of Applicant's claim 1 includes timing each sequential graphics test to determine a time that each graphics test takes

to go across the virtual channel, wherein the time determined for each particular graphics test to go across the virtual channel is indicative of how well the particular graphics test performed. Thus, Applicant's claim does not require processing of commands at a SUT and transmitting resulting output data back to an RTE, as required by Packer. Further, under Applicant's claim 1, a plurality of graphics tests are provided sequentially from the server computer to the thin client, and each test may be timed to determine performance of the test, one after the other, without having to receive data back from the thin client for each test. These limitations are not taught or suggested by Packer.

Conan, Gorshenev, Moulden, Perugini, Mathews, Klein and/or the other art of record do not make up for the shortcomings in Packer discussed above. For example, Conan discusses dynamically generating test execution script at a server, and then issuing commands resulting in execution of test cases by client processes on target machines (par. 0030-0031) Thus, Conan does not teach or suggest timing each sequential graphics test to determine a time that each graphics test takes to go across the virtual channel, wherein the time determined for each particular graphics test to go across the virtual channel is indicative of how well the particular graphics test performed, as recited in Applicant's amended claim 1.

Also, Gorshenev discusses a remote testing module 202 that communicates with a client-testing module 204 via a control channel 220. Remote testing module 202 executes portions of a test and sends commands to client-testing module 204 to perform specified operations on computing device 104 (par. 0030). Thus, Gorshenev also does not teach or suggest timing each

sequential graphics test to determine a time that each graphics test takes to go across the virtual channel, wherein the time determined for each particular graphics test to go across the virtual channel is indicative of how well the particular graphics test performed.

Moulden discusses an integrated testing system in which a host machine 310 includes an integrated testing application 315 that communicates with test tools 324 on a tool machine 320, while a target machine includes a test tool agent 332 (par. 0045). Test tools 324 are designed to execute test cases (i.e., elemental executable testing blocks) for a particular machine (par. 0046). However, Moulden also does not teach or suggest timing each sequential graphics test to determine a time that each graphics test takes to go across the virtual channel, wherein the time determined for each particular graphics test to go across the virtual channel is indicative of how well the particular graphics test performed.

Klein discusses measuring round trip response time for a transaction performed by a computer in a network environment. Round trip response time is measured by starting a timer and sending a transaction to a server. The server services the transaction and generates a response. When the response is received, the timer is stopped (col. 1, lines 58-65). Accordingly, Klein is not directed to graphic testing and Klein does not teach or suggest timing each a plurality of sequential graphics test to determine a time that each graphics test takes to go across the virtual channel, wherein the time determined for each particular graphics test to go across the virtual channel is indicative of how well the particular graphics test performed, as recited in Applicant's claim 1.

Perugini and Mathews are similarly deficient in making up for the shortcomings in Packer, Conan, Gorshenev, Moulden, and Klein discussed above. In view of the foregoing, Applicant respectfully submits that claim 1 is allowable over Conan, Gorshenev, Packer, Moulden, Perugini, Mathews, Klein and/or the other art of record, whether taken alone, or in combination. Independent claims 13, 24, 28, 32, 37, 42, 45 and 47 have been amended to include limitations similar to those discussed above for with respect to claim 1, and are allowable under a similar rationale.

### **Dependent Claims**

In addition to its own merits, each dependent claim is allowable for the same reasons that its base claim is allowable. Applicant requests that the Examiner withdraw the rejection of each dependent claim where its base claim is allowable.

## **Conclusion**

All pending claims are in condition for allowance. Applicant respectfully requests reconsideration and prompt issuance of the application. If any issues remain that prevent issuance of this application, the **Examiner is urged to contact me before issuing a subsequent Action**. Please call or email me at your convenience.

Respectfully Submitted,

Lee & Hayes, PLLC  
Representatives for Applicant

\_\_\_\_\_/Colin D. Barnitz/\_\_\_\_\_  
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